

Application No. 09/965,703
Amendment dated August 12, 2004
Reply to Office Action of May 14, 2004

Amendments to Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A gene expression modulation system comprising:

a) a first gene expression cassette that is capable of being expressed in a host cell comprising a polynucleotide encoding a first polypeptide comprising:

- i) a DNA-binding domain that recognizes a response element associated with a gene whose expression is to be modulated;
- ii) a ligand binding domain comprising a ligand binding domain from a nuclear receptor;

b) a second gene expression cassette that is capable of being expressed in the host cell comprising a polynucleotide encoding a second polypeptide comprising:

- i) a transactivation domain; and
- ii) a ligand binding domain comprising a ligand binding domain from a nuclear receptor other than ultraspiracle (USP).

Claim 2 (original): The gene expression modulation system according to claim 1, further comprising a third gene expression cassette comprising:

- i) a response element to which the DNA-binding domain of the first polypeptide binds;
- ii) a promoter that is activated by the transactivation domain of the second polypeptide; and
- iii) the gene whose expression is to be modulated.

Claim 3 (original): The gene expression modulation system according to claim 1, wherein the ligand binding domain of the first polypeptide is an ecdysone receptor polypeptide.

Claim 4 (original): The gene expression modulation system according to claim 1, wherein the ligand binding domain of the second polypeptide is a retinoid X receptor polypeptide.

Claim 5 (original): A gene expression modulation system comprising:

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a) a first gene expression cassette that is capable of being expressed in a host cell comprising a polynucleotide encoding a first polypeptide comprising:

- i) a DNA-binding domain that recognizes a response element associated with a gene whose expression is to be modulated; and
 - ii) a ligand binding domain comprising a ligand binding domain from an ecdysone receptor; and
- b) a second gene expression cassette that is capable of being expressed in the host cell comprising a polynucleotide encoding a second polypeptide comprising:

- i) a transactivation domain; and
- ii) a ligand binding domain comprising a ligand binding domain from a retinoid X receptor.

Claim 6 (original): The gene expression modulation system according to claim 5, further comprising a third gene expression cassette comprising:

- i) a response element to which the DNA-binding domain of the first polypeptide binds;
- ii) a promoter that is activated by the transactivation domain of the second polypeptide; and
- iii) the gene whose expression is to be modulated.

Claim 7 (original): The gene expression modulation system according to claim 5, wherein the ligand binding domain of the first polypeptide is encoded by a polynucleotide comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, and SEQ ID NO: 10.

Claims 8-10 (withdrawn)

Claim 11 (original): A gene expression modulation system comprising:

- a) a first gene expression cassette that is capable of being expressed in a host cell comprising a polynucleotide encoding a first polypeptide comprising:
 - i) a DNA-binding domain that recognizes a response element associated with a gene whose expression is to be modulated; and
 - ii) a ligand binding domain comprising a ligand binding domain from a retinoid X receptor; and

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b) a second gene expression cassette that is capable of being expressed in the host cell comprising a polynucleotide encoding a second polypeptide comprising:

- i) a transactivation domain; and
- ii) a ligand binding domain comprising a ligand binding domain from an ecdysone receptor.

Claim 12 (original): The gene expression modulation system according to claim 11, further comprising a third gene expression cassette comprising:

- i) a response element to which the DNA-binding domain of the first polypeptide binds;
- ii) a promoter that is activated by the transactivation domain of the second polypeptide; and
- iii) the gene whose expression is to be modulated.

Claims 13-14 (withdrawn)

Claim 15 (original): The gene expression modulation system according to claim 11, wherein the ligand binding domain of the second polypeptide is encoded by a polynucleotide comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, and SEQ ID NO: 10.

Claims 16-36 (withdrawn)